MULTI-MEDIA COMPLIANCE EVALUATION INSPECTION
EPA - REGION III
OFFICE of ENFORCEMENT, COMPLIANCE and ENVIRONMENTAL JUSTICE

National Institute of Standards and Technology
100 Bureau Drive Stop 1730
Gaithersburg, Maryland 20899

NAICS – 921190

Inspection Dates: June 25-26, 2008

EPA Inspectors:

George Houghton
Lead Inspector
Office of Enforcement, Compliance and Environmental Justice
Environmental Science Center
701 Mapes Road
Fort Meade, MD 20755
410-305-2786

José (Joe) Reyna
Environmental Scientist
410-305-2779

Justin Young
Environmental Scientist
410-305-3029

José Jiménez
Federal Facilities Program Coordinator
US EPA Region III
1650 Arch Street
Philadelphia, PA 19103
214-814-2148

Bowen Hosford
CAA Inspector
214-814-3158

Background

A multi-media inspection was organized and conducted by the Office of Enforcement, Compliance and Environmental Justice (OECEJ), EPA-Region III and assisted by the Maryland Department of the Environment (MDE) at the National Institute of Standards and Technology (NIST or the Facility) located in Gaithersburg, Maryland. The Facility was notified of the inspection on June 23, 2008.

On June 25 and 26, 2008, the multi-media inspection was conducted at the Facility as part of an EPA initiative that targeted Federal Facilities in the Chesapeake Bay watershed for environmental inspections. The Facility was inspected for compliance with the following rules: management of hazardous waste (RCRA-C), underground storage tanks (RCRA -I), air emissions (CAA), storm water and waste water (CWA), Spill Prevention, Control and Countermeasures (SPCC), and Toxic Substance Control Act-Polychlorinated Biphenyls (TSCA-PCB). The objective of this inspection was to determine compliance with those programs and generally observe the Facility to ensure its overall compliance with the environmental regulations.

Photographs were taken using digital cameras at many points of interest during the inspection. These photographs are attached to this report with descriptions. Not all of the photographs are noted in the body of the report.

Upon arrival at NIST, on the morning of June 25, 2008, the EPA inspectors presented their credentials, identifying them as authorized inspectors from the U.S. Environmental Protection Agency. The MDE representatives present at that time were also introduced. The EPA inspectors then provided to the Facility a brief description of EPA's multi-media inspection process along with a brief description of the scope of the inspection. The Facility was then asked to provide a description of the operation and mission for this Facility.
The MDE representatives were:

Roland Gorschhboth
MDE - Air
rgorschboth@mde.state.md.us

Richard Wolters
MDE Waste Management
rwolters@mde.state.md.us

While numerous personnel from NIST assisted the inspectors during this effort, the principle contacts are listed below:

Facility Representatives:

Rosamond A. Rutledge-Burns
Safety, Health and Environment Division Chief
(NIST's Environmental Officer)
(Not present during the inspection)

Michael Blackmon
Environmental Engineer
301-975-5822

Stephen C. Willett
301-975-8707

Christopher J. Neary
301-975-5130

Facility Description

NIST was founded on March 3, 1901, as the National Bureau of Standards; NIST was the federal government's first physical science research laboratory. Initially, they were located in Washington DC and subsequently relocated to this location. At the present time, this Facility has around 5,000 employees in 53 buildings. The campus covers about 600 acres. The NIST representatives briefed the inspectors concerning the various activities at the facility. A copy of that presentation is attached to this report. Also included is a map of NIST.

Clean Air Act (CAA)

U.S. EPA Inspector Bowen (Chip) Hosford conducted the Clean Air Act (CAA) portion of the multi-media inspection. The rules governing this inspection were under the authority of the CAA, as amended, by 42 U.S.C. §7401, et seq. All stationary air emission sources were evaluated during the inspection. These included boilers, the fire research laboratory, and chillers using more than 50 pounds of refrigerant.

All information in this report, unless otherwise specified, was provided by Michael Blackmon, NIST, or from documentation in NIST and EPA files. Mr. Blackmon provided a copy of the Title V operating permit and files containing the Title V Compliance Certifications and Annual Emissions Certification Reports.

NIST is classified as a major source of air emissions by the State of Maryland. It has a Title V operating permit, originally issued on May 12, 2003. The permit expired on April 30, 2008, but is still in effect because NIST made a timely application for a new permit. This permit application is currently being evaluated by MDE. MDE re-issued NIST's Title V permit effective January 1, 2009. This permit will expire on April 30, 2013.

EPA visited the following buildings to evaluate compliance with NIST's Title V operating permit and related air regulations.

Heating and Cooling Plant

Herb Rohrbaugh, heating plant shift supervisor, and Mike Blackmon accompanied George Houghton and Bowen Hosford on the plant tour. Mr. Rohrbaugh provided information about plant operations. After the tour of the plant, Inspectors Houghton and Hosford met with Dave Meyer, the heating plant manager, who provided additional information and documentation about the plant.

NIST has six boilers, providing heat to the campus. It also has six chillers providing cold water for the laboratories and domestic cooling. The boilers run on natural gas and No. 2 heating oil. There are hour counters on the control panels for the boilers when they are burning No. 2

heating oil. Only boilers 1 and 2 were running on the day we inspected the heating/cooling plant. Both were burning natural gas. The chart recorder for Boiler 2 showed natural gas at 27.5 "KSCFH" (thousand, standard, cubic, feet, per hour).

Each boiler has its own stack; there is no common stack. There are no controls on the air emissions from each boiler. Boilers 5 and 6 had stack tests performed on them to check for compliance with emission limits. The stack test reports dated April 2008, showed that NOx emissions were within the Title V limits.

In the chiller room, chillers 2, 4, 5, and 6 were running. Chillers 1 through 4 contain around 20,000 pounds each of R-134a refrigerant. There are two 1,000-pound storage cylinders on the floor. According to Mr. Meyer, one is empty and the other is full. Originally these chillers used R12 but were switched over to R134a in the late 90's.

Chillers 5 and 6 contain 15,000 – 18,000 pounds of R-22 refrigerant, respectively. These chillers were installed in 1993. There are two 1,000-pound storage cylinders of R-22 under the grating in the floor of the chiller room. Mr. Meyer provided copies of several pages of the maintenance log for the chillers that recorded events as far back as 1992. The plant conducts leak checks every quarter. Mr. Meyer reviewed the log and stated that only one leak event was considered major that occurred because of equipment failure on chiller or refrigerant unit (RU) 3 discovered on June 9, 2008. Once the equipment was repaired, 1,000 pounds of R-134A was added to the Unit.

Part of the log tracks overall R-134a usage from the 1,000 pound storage tanks at the facility that are used to replenish refrigerant in the chillers between July 21, 2003 and June 9, 2008. Total usage was about 1,659 pounds per year for RUs 1 – 4. The amount of R-134a put into each unit is listed on the maintenance log for RUs 1, 2, and 3. In each instance when the leaks exceeded leak limits for industrial process refrigeration there is a repair notation on the printout.

A visible emissions log is kept by Mr. Meyer. He provided a copy of the several pages of this log indicating that visible emissions observations were conducted monthly as required by the Title V permit.

The Title V operating permit requires NIST to get certifications from its fuel supplier that the No. 2 heating oil meets the sulfur limit, 0.03 %. NIST is required to include fuel supplier certifications with its semiannual reports that the fuel complies with the Title V sulfur limit. However, Mr. Blackmon stated that he had not been able to obtain copies of these certifications from the Government Services Administration (GSA). Mr. Meyer provided one copy of a June 12, 2008, fuel certification from his files and a February 7, 2007, letter from NIST's fuel supplier that the oil's maximum sulfur content was below 0.3%. Mr. Meyer also stated that the fuel certification was the only one he had. He only got it because it was attached to a bill of lading.

The Title V also requires NIST to include fuel certifications in each semiannual monitoring report. None of the monitoring reports listed below have fuel certifications attached as required by the Title V operating permit.

Report Dates

July 1, 2007 – December 31, 2007
January 1, 2007 – June 30, 2007
July 1, 2006 – December 31, 2006
January 1, 2006 – July 1, 2006
July 1, 2005 – December 31, 2005
January 1, 2005 – June 30, 2005
July 1, 2004 – December 31, 2004
January 1, 2004 – June 30, 2004

NIST uses a computer program, MAXIMO, to generate maintenance schedules for the heating/cooling plant to satisfy the Title V permit requirement that the facility maintain a maintenance plan on-site. Mr. Meyer provided a printout of the schedule for June through October 2008.

As Inspectors Houghton and Hosford were leaving the plant, the inspectors reviewed the refrigerant certifications for the plant operators which were posted on the wall. All operators had current certifications.

NIST also has two centrifugal chillers in the Advanced Measurement Laboratory that were not visited. These chillers contain approximately 1,200 pounds of R-123 refrigerant.

Fire Research Laboratory

Doris Reinhart and Matt Bundy provided information and documentation about the Laboratory and emissions from operations at the Research Laboratory. There are three large hoods inside the laboratory that vent to the air emissions control equipment. Burn experiments, such as burning furniture, are conducted under these hoods. The emissions from these experiments are vented to a control equipment that consists of an afterburner, then a wet scrubber (lime and water), and a baghouse. The baghouse hoppers are emptied once a year. Analysis of dust samples indicates a non detect for the contaminants.

The Title V operating permit specifies that emissions from the control system cannot exceed 0.03 grains of particulate matter in every dry standard cubic meter of dry exhaust gas. However, the Title V does not require a stack test to verify that the unit complies with this standard. According to Mr. Blackmon there has never been a stack test to check this. Note: In the current Title V, effective January 1, 2009, this limit remains but the permit does not require testing as well.

The Title V permit requires NIST to conduct visible emissions observations once per month and keep a log of these events. Inspector Hosford observed copies of the visible emissions logs, provided by Ms. Reinhart, which showed at least one observation per month from June 19, 2007 through June 26, 2008.

The Title V permit also requires NIST to keep a record of preventive maintenance performed. NIST keeps this electronically on a computer in the lab office. NIST provided a hardcopy of the log of maintenance and repair activity to the emission control system for the previous six years.

Clean Water Act (CWA)

This portion of the multi-media inspection was conducted by Mr. Joe Reyna, USEPA Region III, and Environmental Scientist.

Permit Information

NIST is a government establishment engaged in performing non-commercial research and development. NIST is considered an Industrial User, and has a permit to discharge industrial wastewater into the Washington Suburban Sanitary Commission's Sanitary Sewer Collection System. The industrial wastewater flows through the collection system and is treated by the District of Columbia Water and Sewer Authority's Blue Plains Advanced Wastewater Treatment Plan. NIST's Industrial User Permit became effective June 01, 2008 and is set to expire May 31, 2012. NIST's Permit Number is 05813.

NIST also has a General Permit for Discharges from State and Federal Small Municipal Separate Storm Sewer Systems (MS4) under Phase II of the National Pollutant Discharge Elimination System. NIST applied for permit coverage on January 24, 2005. NIST's permit number is NPDES No. MDR 0501.

Compliance History

NIST has an on-site neutralization system located in Building 313. It has the ability to adjust the pH of NIST's wastewater prior to it being discharged into the Sanitary Sewer Collection System. The neutralization system is designed to add sodium hydroxide if the incoming wastewater is acidic or add sulfuric acid if the pH is elevated.

On February 14 to 16, 2007, NIST conducted its quarterly sanitary sewer effluent sampling at the monitoring manhole (CWA photograph #3). The monitoring manhole samples are collected after NIST's wastewater goes through the neutralization system but prior to it being discharged into the Washington Suburban Sanitary Commission's Sanitary Sewer Collection System. On February 15, 2007, at 3:10 p.m., the pH of NIST's sanitary sewer effluent was found to be over 10 S.U. The pH peaked at 10.8 S.U. and dropped below 10 S.U. after a period of approximately 23 minutes. NIST's Industrial User Permit states the pH of the final effluent must be between 6 S.U – 10 S.U. NIST was unable to determine the exact cause of the effluent exceedance; however, Facility personnel stated that it may have been caused by a failure of the neutralization system. NIST hired a contractor to perform maintenance on the neutralization system. The contractor determined the pH probe inside the neutralization system failed due to a defective electronic component (a preamp). It was replaced on February 26, 2007. The neutralization system was recalibrated and was found to be functioning normally.

On April 5, 2007, NIST submitted their Periodic Compliance Report to the Washington Suburban Sanitary Commission. On April 20, 2007, the Washington Suburban Sanitary Commission sent a Notice of Violation to NIST.

On-Site Inspection

On June 25, 2008, Mr. Reyna observed the neutralization system located in Building 313 (CWA photographs #1-2). The pH of NIST's final effluent was measured to be 7.58 S.U at 11:15 a.m., and the wastewater flow was 222 gallons per minute.

Upon further review, Building 313 was not equipped with high and low pH alarms to signal to NIST personnel when a potential problem may be occurring. According to NIST personnel, the neutralization system's pH probe is cleaned and calibrated once per week; however, NIST was not maintaining a pH calibration log book documenting the weekly calibrations.

MS4 Phase II

NIST is required to submit an annual report to MDE regarding their MS4 Phase II permit. The annual report to MDE includes NIST's MS4 Phase II highlights of the six minimum control measures as dictated by the permit. NIST has had permit coverage for over two years and has submitted their annual reports on-time.

NIST did have a Stormwater Pollution Prevention Plan on-site and available for review, on the date of the inspection; however, the Plan is maintained in draft status (CWA attachment #1). According to NIST personnel, the Stormwater Pollution Prevention Plan was never finalized because NIST did not have the personnel to fully implement the MS4 program.

Resource Conservation and Recovery Act (RCRA-C)

This portion of the NIST multi-media inspection was conducted by José Jiménez. Initially, Inspector Jiménez reviewed the Facility's RCRA files and then proceeded to observe the laboratories and the less than 90-day storage area, with EPA inspectors Joe Reyna and Justin Young (collectively, the EPA RCRA Inspectors). The Facility has a contractor, Bishop and Associates Incorporated, who collects hazardous waste from the labs and consolidate the waste in the less than 90-day storage area at Building 312. The Facility representatives were Michael Blackmon and Christopher J. Neary.

General Observation

The Facility is a Large Quantity Generator (LQG). Their RCRA ID number is MD5 131 531 811. EPA Region III has never conducted a RCRA C inspection at the Facility, the last inspection was conducted by MDE on September 10, 2007.

After the opening remarks, Inspector Jiménez proceeded to review records concerning the management of hazardous waste at the Facility. The following documents were reviewed: the hazardous waste management plan, biennial hazardous waste report, manifests, weekly inspections log and contingency plan. The discussion on the records reviewed is address later on this report under the section Records Reviewed.

On June 26, 2008, around 10:25 a.m., the EPA RCRA Inspectors visited Building 227, to observe individual laboratories for compliance with the hazardous waste management regulations. Building 227 has 55 satellite accumulations areas (SAA) identified by the Facility, see Document No. 1. The EPA RCRA Inspectors visited seven of these locations. Then the EPA RCRA Inspectors visited the less than 90-day storage areas, located in Building 255, and Building 224.

Mr. Blackmon accompanied the EPA RCRA inspectors to Building 227. The second floor of the building was divided in sections A and B. The following rooms were visited:

Room B-243

The EPA RCRA Inspectors observed a container at the point of generation that was closed and labeled, see Photo No. RC- 1. The container was used to accumulate Acetic acid /Methyl alcohol and Coomassic Blue (dye).

Room B-217

The EPA RCRA inspectors observed three 1-gallon containers inside a lab fume hood; all were closed. One of the containers was not properly labeled to indicate its content; this container held organic waste, see Photo No. RC- 2.

Room A-260 / A-252

These two rooms are managed by the same person. In Room A-260, the EPA RCRA Inspectors observed a one-gallon container containing organic waste. It was labeled and open, see Photo No. RC- 3. The room was unoccupied at the time of the visit. Also, a container with silica gel was observed labeled and closed in the same room.

In the next room, A-252, EPA RCRA Inspectors encountered the person who manages the lab. Two 1-gallon containers were labeled and opened; see Photo Nos. RC- 4 and 5. A third 1-gallon container was labeled and closed with a yellow cap, see Photo No. RC- 6. At the time of the inspection, the lab employee was not adding or removing waste to the two open 1-gallon containers. The 1-gallon container located at the right side of Photo No. RC- 6 contained Nochromix (sulfuric acid with no chromium 6). The open 1-gallon container, located on the left side of Photo No. RC- 6, was labeled organic waste. .

Room B-237

A 1-gallon container with HCL waste was observed with a cracked bottle cap at the time of the inspection.

Room A-158

The lab fume hood contained several containers, see Photo RC- No. 8. Among those containers, an open 1-gallon bottle was labeled waste solvent, but empty at the time of the inspection, see Photo No. 7. According to the lab person, he has not used the lab fume hood since he came to the lab, around a year ago.

Room B-255

At the time of the inspection, the lab fume hood had three 1-gallon containers with hazardous waste. The three containers were labeled and closed, see Photo No. RC- 9. An empty small flask without a cap was observed next to the three 1-gallon containers. The flask is used to transfers waste.

Building 312 – Less than 90-day Hazardous Waste Storage Area

In the afternoon, the EPA RCRA Inspectors visited the less than 90-day storage area accompanied by the Facility representatives Messrs. Neary and Blackmon. The building was divided into a receiving area and three rooms used to store hazardous wastes: Rooms 106, 108 and 110. A copy of the hazardous waste inventory for June 24, 2008, was obtained, see Document No. RC - 5. According to Facility representatives, this document is prepared by the Facility and describes all the containers in storage in Building 312.

At the receiving area, two large containers held spent fluorescent light bulbs. Both large

containers were marked as universal waste and dated, see Photo RC- 13. Each individual box, containing spent fluorescent light bulbs, were not labeled nor dated. In Photo RC-13, the two containers can be observed, the container on the left, contained around 16 boxes of fluorescent light bulbs; on average every one of the boxes contained 27 bulbs. The second container held 14 boxes, and on average each box contained 24 bulbs. Another container was holding spent lead acid batteries, see Photo No. RC- 12. The box was marked with an accumulation start date of 3/19/08, and a sign was observed on the wall concerning the content of the box, see Photo No. RC- 12. On one wall, the EPA inspectors observed information on the emergency contacts, the weekly inspection log, and NIST Waste Inventory Overview, see Photo No. RC- 22.

Room 106

This room is used to store organic and inorganic, poisons and special medical waste. Here, the Facility consolidates lab waste in to lab packs. At the time of the inspection, twelve 5-gallon pails, four 55-gallon and two 30-gallon containers were observed stored in this room. All these containers were labeled as hazardous waste, closed and dated. See Photo RC- No. 14.

Room 108

This room is used to bulk organic materials. At the time of the inspection, the EPA RCRA Inspectors observed three 55-gallon containers. Each container was labeled as hazardous waste and dated. Also, these containers were identified with a specific tracking number. See Photos RC- 15 and 16, for a view of two of the hazardous waste containers.

Room 110

This room is dedicated to acids and bases. One 55-gallon container was observed in this storage area. The container was closed, dated and labeled as hazardous waste, see Photos. RC- 17 and 18. At the storage area, the EPA RCRA Inspectors, observed a neutralization unit, see Photo RC- No. 19. According to Mr. Neary, this unit is not used often, and only to provide basic neutralization.

After leaving from Room 106, the EPA RCRA Inspectors visited Room 105 in this building where we found a phone and a sign with emergency contacts.

The EPA RCRA Inspectors returned to Building 227 to visit rooms B317 and B333.

Building 227

Room B 317Mr. Neary took the EPA RCRA Inspectors to Room B 317, where three 5-gallon containers were observed. Two containers were located under a sink, see Photo No. RC-24. Another 5-gallon container was observed on the counter, see Photo No. RC- 25. These containers were used to store hazardous waste from the lab operation. The container observed under the sink, on the right side, held1.5 percent HNO3 and HCL. The container had a small

label. The container, located under the sink on the left side, was not labeled. According to Mr. Neary, the container held the same waste as the containers on the right.

Room B 333

A 5-gallon container was observed beneath the lab fume hood; this container was labeled and closed.

From Building 227, the EPA RCRA Inspectors proceeded to Building 224 to visit more labs. Those observations are described below.

Building 224

Room B111

No hazardous waste stored in this room. This lab generates medical waste.

Room B121

No hazardous waste stored in this room.

Room B129

No hazardous waste stored in this room.

Room B151

A 5-gallon container was observed connected to an Atomic Absorption Spectrophotometers. The container was labeled and closed. See Photo No. RC- 26.

Auto Shop

The Auto Shop was visited by George Houghton, where he observed a container holding spent lead acid batteries, see Photo No. RC-10. Photo No. RC- 11, show the content of the box. This box also contained 3 NiCad power tool batteries. They were removed immediately by the Facility. According to the facility, these batteries should not have been in this container and are managed separately.

Records Review

The following documents were reviewed on March 18, 2008: biennial report, "Hazardous Waste Management Plan," manifests, weekly inspections logs and Hazardous Waste Contingency Plan.

NIST had submitted the Biennial Report to MDE, for calendar year 2007. According to the Biennial Report, the Facility generates U, P and F waste, see Document RC- No. 1, for copy of the Report.

In May 2008, NIST finalized the Hazardous Waste Management Plan (the Plan). This document provides a description of hazardous waste management requirements. According to the Plan, satellite accumulation areas (SAAs) are located in 35 buildings across the Facility. The plan requires an inspection of the SAAs using a checklist located on page 5-4 of the Hazardous Waste Management Plan. This form was not observed to be used by the Facility. Section 5 of the Plan lists the SAAs. This list was used to select the SAAs visited during the inspection, see Document No. RCRA-C 2.

The less than 90-days storage area weekly inspection records were reviewed for the time frame of July 25, 2007 to June 13, 2008. See Document No. RCRA-C 3, for an example of the weekly inspection report. No problems were observed with the weekly inspection reports.

The manifest for 2007 and 2008, were reviewed and all were signed by the TSD, and had the LDR paper work. A concern with the amount of waste generated per month was raised to Facility representatives. The amount appears to be below 2,200 pounds, but due to the potential generation of some acute hazardous waste, the Facility needs to be aware of this threshold (less than 2,200 pounds per month). See Document No. RCRA-C 4, for copy of a manifest and LDR issued by the Facility.

The Hazardous Waste Contingency Plan was reviewed on June, 26, 2008. This Plan has a description of the Facility and its equipment, emergency contacts, agreement with the fire department, discussion on releases and an evaluation plan. It did not discuss any information on internal communication or agreement with a local hospital.

Training Records

Training records for Messers. Blackmon and Neary, along with Bishop and Associates Incorporated employees were available at the time of the inspection. Records were kept in good order. The hazardous waste SAA training has been offered by divisions since 2006 and every division is targeted in different years. Every new employee will have a discussion with their supervisor concerning different requirements that includes the management of chemical wastes.

RCRA-I Underground Storage Tanks (USTs)

This portion of the multi-media inspection was conducted by George Houghton and assisted by Justin Young. The NIST representative was Christopher Neary. Inspectors Houghton and Young observed the USTs located at building 303, a government vehicles maintenance area. One gasoline tank and one diesel tank are at that location. In addition, the Facility has one used oil tank located at the vehicle maintenance. These are the only tanks at NIST that are regulated under the leak detection portion of the UST rules. UST checklists are attached to this report. Remaining USTs at NIST are exempt from the leak detection portion of the rules and were not observed as part of this inspection. These tanks may contain heating oil or emergency generator fuel.

Vapor monitoring is one method of leak detection used for the tanks. Measurements are recorded each month and maintained on a spreadsheet. The meter used to measure vapors is an Eagle PKI. Each tank had 2 monitoring wells. None were secured. According to the operator, the equipment is calibrated before each use, using hexane. The calibration gas is obtained from the manufacturer. For the calibration during this inspection, the calibration gas was 5 ppm and the equipment read 5 ppm. This instrument check is not documented by the Facility. In June 2007, the gas meter was sent off-site for a third party calibration. During this inspection, the ambient air measurement was 0 ppm, as were the monitoring wells vapors for the gasoline tank and diesel tank. The used oil tank monitoring well VOCs were measured at 20 and 25 ppm. Not all of the wells were suitable for measuring the vapor content. One of the gasoline tank wells was full of water and both wells did not appear to be located within the back fill of the tank. The wells at the used oil tank were next to the tank and probably within the backfill of the tank. The diesel tank wells appeared to be within the backfill of the tank. The Facility did provide a spreadsheet of vapor reading for the tanks in question for 2007 and 2008. As can be seen, most of the readings are '0'.

These tanks are also monitored by a Veeder Root 300. The setup printout was obtained from the equipment. According to the set up, all three tanks are monitored for level. The diesel and gasoline tanks have enabled a weekly 0.20 gallon/ hour test. The printout also stated that the interstitial space for gasoline tank is monitored but there is no mention of this type of monitoring for the diesel or used oil tanks. The sump for the gasoline tank is also monitored. Overfill alarms for all tanks are also enabled.

Inspector Houghton reviewed 12 months of Veeder Root data for all three tanks extending from May 2007 to May 2008. According to the Facility, they keep one year of monitoring data for the tanks. As stated above, the Veeder-Root does not monitor the used oil tank for leak detection. Gasoline and diesel tank data was observed for the year prior to this inspection. The diesel tank passed the 0.20 gal/hr test for each month. The gasoline tank passed each month except for June and September 2007. The data reviewed also showed that each month had many failures, some due to low fuel level or failed test. The Veeder-Root does not appear to be programmed to monitor the interstitial space for the diesel or the used oil tanks. Although the Veeder-Root is

setup to monitor the gasoline tank, that data is not reported.

The 2,500-gallon diesel tank has suction pumping. ATG sensors were observed in the monitoring ports for both liquid level and interstitial monitoring. Overfill protection was observed in the fill pipe and the spill bucket was dry. An audible overfill alarm was observed on the outside of the building for this tank and it sounded upon activating the test button. The tank sump was dry and monitored by the ATG. The dispenser had no pan; no leaks were observed. Inspector Houghton could not verify whether the piping is slopped back to the tank. The existence of a check valve could not be verified. The Facility does not have any line test data or tank tightness data.

The 6,000-gallon gasoline tank also has suction pumping. No overfill was observed in fill pipe. It is presumed that the overfill is in the vent, but that could not be verified. An audible overfill alarm was observed for this tank. It is mounted on the side of the building and sounded upon activating the test button. The dispenser does not have a pan. A check valve was not recognized by Inspector Houghton. The slope of the line from the tank to the dispenser could not be verified. It is a log run from the tank to the dispenser, estimated at 50 feet or more. The Facility has no line test data for this tank. Wires for interstitial space monitoring were observed for this tank.

The used oil tank has a capacity of 1000 gallons. Its operation has changed, in that it is not used on a regular basis. At one time, it received used lubrication oil. Currently it only receives oil from an oil/water separator. The used oil from the shop is now stored in an AST, prior to disposal. Additions to the tank are less than 25 gallons. No overfill was observed. Oil is removed by a vac truck through a stand pipe in the tank. The inspector observed the connection to the Veeder Root. After reviewing the Veeder Root setup, it was determined that the ATG does not accomplish leak detection for this tank. As stated earlier, the Facility does use vapor monitoring for this tank.

Spill Prevention Control and Countermeasures (SPCC)

José Jiménez accomplished this portion of the multi-media inspection. These regulations apply to any facility engaged in drilling, producing, gathering, storing, processing, refining, transferring or consuming oil and oil products, providing that all the following conditions are met: the facility is non-transportation related, the aboveground storage capacity of a single container is in excess of 660 gallons, or the aggregate aboveground storage capacity is greater than 1,320 gallons, or the total underground capacity is greater than 42,000 gallons, and due to the facility location, oil spilled at the facility could reasonably be expected to reach waters of the United States. The EPA's Oil Pollution Prevention regulations can be found at 40 C.F.R. Part 112. This is still up in the air and I don't know that you have to explain all of this for purposes of an inspection report.

The National Institute of Standards and Technology (NIST or the Facility) stores oil (as defined by EPA) in various forms, primarily, heating oil. At the time of the inspection, the Facility had an SPCC Plan. Due to time limitation, the plan was not reviewed in detail; consequently, there are no conclusions at this time.

Toxic Substance Control Act-Polychlorinated Biphenyls (TSCA-PCB)

According to Facility Representatives, no PCB Transformers were in used at the Facility.

ATTACHMENTS – NIST

Photographs – all media

NIST mission presentation
Map of NIST
List of Inspection Attendees

Clean Water Act (CWA)

1. CWA attachment 1 - Storm Waster Pollution Plan

Clean Air Act (CAA)

No attachments for this program

Hazardous Waste (RCRA-C)

1. RCRA 1: Biennial Report for 2007 (available from the inspector upon request)
2. RCRA 2: List of Satellite Accumulation Areas
3. RCRA 3: Weekly inspection records
4. RCRA 4: Sample Manifest and LDR
5. RCRA 5: Building 312, <90 Day Hazardous Waste Inventory
6. James Blackmon Position Description
7. Occupational Health and Safety Orientation Checklist

Underground Storage Tanks (UST)

1. UST Checklist
2. UST Site Sketches
3. NIST UST Vapor Monitoring
4. Veeder Root setup printout (available from the inspector upon request)

Spill Prevention Control and Countermeasures (SPCC)

No attachments for this program